

OPERATOR
Spare Parts &
Service Manual



®

Rammer

FAIRPORT

CONSTRUCTION EQUIPMENT LTD

Blagden Street
Sheffield
S2 5QS
ENGLAND

Tel: +44 (0) 114 276 7921
Fax: +44 (0) 114 272 0965
Email: sales@fairport.uk.com

Unit 32,
The Bell Centre,
Newton Road,
Manor Royal,
Crawley,
West Sussex,
RH10 9FZ
Tell +44 (0) 1293 534742
Fax +44 (0) 1293 529056

Preface

This manual contains important information on how to use FAIRPORT Vibratory Rammer properly and safely. Read through this manual BEFORE you attempt to operate the machine.

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Safety

The following safety instructions must be followed to avoid any property damage, personal injury, or possible death.

- This machine must be operated by well-trained personnel, and for its intended purpose only. The owner of the machine must observe and have the user of the machine observe, the effective labour protection regulations in the country of application.

- This machine must be operated on the ground where the stability is guaranteed. When working near the rim of the excavated trenches, use the machine properly so that the machine may not collapse or fall down.
- Keep the work area clean and free from obstacles.
- Keep the unauthorised personnel away from the machine during the operation.
- ALWAYS wear ear-protector, hard cap (helmet), dust mask, safety goggles, gloves and steel toe capped shoes during the operation.
- Set the engine switch to OFF position before transportation or maintenance.
- Close the fuel-shout off valve before transportation or storage.
- Do not attempt to remove any cover or guard. Always check the condition of guards and covers before operation.
- Never leave the engine running unattended.
- The machine is heavy and must not be lifted single-handedly. Use proper hoist to lift the machine.
- The engine is liable to be extremely hot during and immediately after the operation. DO NOT TOUCH THE ENGINE.
- Fuel:
 - Fuel is flammable. Handle it very carefully.
 - Do not smoke while filling the fuel tank.

- Before refuelling, switch off the engine and allow it to cool.
- Wipe off any spilt fuel from the engine and the machine.
- Keep the fuel in a proper container and at the safe place.
- Exhaust Fume:
 - The Exhaust Fume contains poisonous Carbon Monoxide.
 - Operate the machine only where the proper ventilation can be guaranteed.
- Residual Risks:
 - This machine is designed to eliminate the possible risks arising from the use of it. However, risks do reside and these residual risks are not clearly recognisable and may cause personal injury or property damage or possible death. If such unpredictable and unrecognisable risks become apparent, the machine must be stopped immediately and the operator or his supervisor must take appropriate measures to eliminate such risks. It is sometimes necessary that the manufacturer must be informed of such events for future counter measuring.

SAFETY PICTOGRAMS USED ON FAIRPORT EQUIPMENT



Specifications

Model	TV5DX	TV6DX
Weight	55 Kg 122 lbs	63Kg 139 lbs
Overall Dimensions (L x W x H)	705 x 380 x 990mm 27.8 x 15.0 x 39.0 in.	763 x 420 x 1,045 mm 30.0 x 16.5 x 41.1 in
Ramming Shoe Size (L x W)	332 x 250mm 13.1 x 9.8 in	332 x 280mm 13.1 x 11.0 in
Vibration Frequency	570 – 635 vpm	550 – 620 vpm
Jumping Stroke	30 – 40mm 1.2 – 1.6 in	40 – 50mm 1.6 – 2.0 in
Travel Speed	8 – 13m/min 26.2 – 42.7 ft/min	8 – 13.6 m/min 26.2 – 44.6 ft/min
ENGINE	Model	Honda GX100
	Type	4 Stroke, Air Cooled, OHC, Petrol Engine
	Fuel	Automotive Petrol
	Rated Output	1.7 KW (2.3 HP)
	Maximum Output	2.2 KW (3.0 HP)
	Fuel Tank Capacity	2.0 Litre 3 US Gal

Intended Use

This machine is intended for the compaction of road base foundations, curbs and footing, and for the repair of streets, highways, sidewalks or pavements.

Check Before Operation

- Check the entire machine for any sign of damage or leak. Never attempt to run the machine before such damage or leak has been replaced or repaired.
- Check the Engine Oil Level before operation. Place the machine on the level surface and remove the Oil Filter Cap. Check to see if the oil level is between L and H level using the oil level gauge at the filler cap.
- Check the condition of Air Filter element before each use. If the filter element is contaminated, clean the element or replace it in accordance with the instruction manual for engine.
- Check that the fuel is sufficient. If not, supply fuel. (See SAFETY Instruction for the handling of fuel).

Operating Instructions (Starting the Engine)

- Open the Fuel Shut-off Valve at the fuel tank.
- Set the Engine Switch to ON position
- Set the Throttle Lever halfway between H and L position.
- Move the Choke Lever to close it. When the engine is warm, let the lever partially open.
- Hold the machine firmly with one hand and pull the recoil starter with the other hand until the feel resistance.
- Then, pull the recoil starter briskly to start the engine.
- Move the Choke Lever to OPEN position and let the engine run at idle for 2 to 3 minutes.

(Operating the Machine)

- Move the throttle lever quickly to H position.
 - o Move the lever quickly. Slow setting may cause damage to the centrifugal clutch.
 - o Always set the throttle lever to the highest position during operation. Improper setting may cause irregular tamping motion and premature wear of the machine.
 - o The engines' maximum revolution has been set at the factory to produce the optimum engine power. DO NOT attempt to alter this setting.
- At the maximum engine revolution, the machine gives impact to the ground while moving forward to compact the lift.
 - o Do not put pressure on the operation handle during the operation. The jumping motion would be hindered and premature wear or tear may result.
- Do not tilt the machine too much during the operation. Try to keep the entire sole of the ramming shoe on the ground. Otherwise, premature wear or tear of the ramming shoe may result.
- When compacting on damp soil, put the wire to the Pull Fixture and have the other person pull the rope to assist the forward movement.

(Stopping the machine)

- Move the throttle lever to L position and let the engine run at idle for 1 to 2 minutes.
- Close the Engine Switch to OFF position to stop the engine.

Maintenance

- The height of the handle can be adjusted by loosening three bolts at each side of the Operation handle and retighten them at the desire handle height.
- For the maintenance of Engine, refer to the Instruction manual for engine.
- Check the tightness of every bolt and nut at every 8 hours of operation. Retighten if necessary.
- Replace the oil in the ramming cylinder after first 20 hours of operation. Henceforth, replace the oil at every 200 hours of operation.
- Remove the Oil Filler Plug at the Protector and tilt the machine to drain the old oil.
- Place the machine on the level surface at the upright position and supply new oil. Do not overfill with the oil.
(Quantity: TV5DX, TV6DX, = 700cc, TV72DX = 800 cc)
Recommended Oil: SAE 10W30

Transportation

- Before transportation, confirm that the fuel shut-off valve is closed. It is recommended to consume all the fuel in the fuel line and the chamber of the carburetor by running the engine at idle, while the fuel shut-off valve is closed. The engine will stop after all the fuel remaining has been consumed. Then, set the engine switch to OFF position.
- Be sure to let the engine cool off before transportation.
- Place the machine in the **upright position** during the operation if at all possible.
- If the machine needs to be laid on the floor of the vehicle, lay the machine to the right (when viewed from the operator's position). Never let the carburetor of the engine face downwards, or the engine oil may get into the carburetor or air cleaner to cause starting difficulties.
- Tie the machine firmly to the vehicle during the transportation.
- Lifting the machine:
 - o Before lifting the machine, check the condition of the Rubber Isolator for the Handle. If there is any sign of cracking or wear, replace the Rubber Isolator before lifting the machine.
 - o Follow the applicable safety instruction for the use of hoist or lift.

Storage

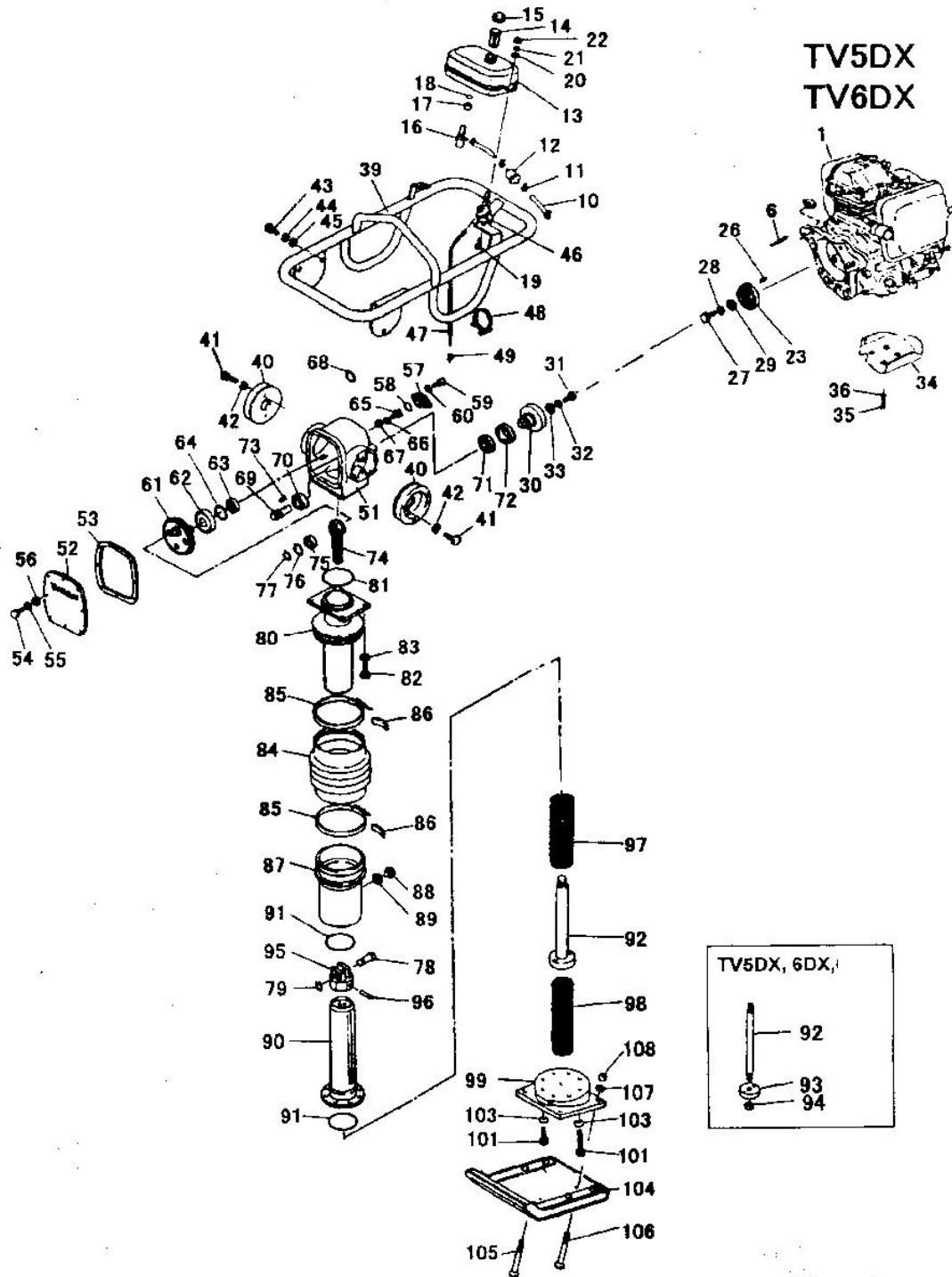
- Make sure that the engine is completely cooled off.

- Wipe off any dirt or oil on the machine.
- Put the cover over the machine.
- For long-term storage, remove fuel from the fuel tank. Also remove fuel remaining in the fuel line and the chamber of the carburettor. To drain fuel from the chamber of the carburettor, remove the Drain Plug provided at the chamber and remove the fuel.

Troubleshooting

Trouble	Possible Causes	Countermeasure
Engine won't start	Fuel is insufficient	Refuel with Automotive petrol.
	Fuel Cock is closed.	Open the fuel cock.
	Engine switch is set to OFF position.	Set the switch to ON.
	Spark Plug contaminated or damaged.	Replace the spark plug.
	Improper spark plug gap.	Correct the gap.
Engine stops suddenly, or stops when RPM is increased.	See above.	See above.
	Main jet of carburettor being clogged with dirt	Take out the main jet from carburettor and clean the jet with compressed air.
	Air Filter Element dirty	Clean the element.
	Spark Plug cap is loose.	Tightly fit the plug cap to the plug.
Engine runs, but the machine does not produce impact.	Lack of engine power.	See above.
	Clutch slipping.	Dismantle the clutch assembly and clean the shoe and drum with proper solvent. Replace the shoe if necessary.
	Crank/Gear unit damaged	Contact dealer.

Parts List



Ref. No.	Part No.	Description	TV5DX	TV6DX
1		Engine, Honda GX100	1	1
	8312101000	Engine, GX120K1KRA4		
2	0180210358	Bolt, M10 x 35		
3	0251210001	Spring Washer, M10		
4	0933110321	Washer, 25 x 10.5 x 3.2t		
5				
6		Stud Bolt, M10 x 32	4	4
	8372101060	Stud Bolt, M10 x 53		
7	8372101050	Stud Bolt, M10 x 80		1
8		Flange Nut, M10	4	4
	8372101070	Nut, M10		
9				
10		Fuel Hose (L200)	1	1
		Fuel Hose (L170)	1	1
	8302101030	Fuel Hose (L80)	1	1
	0851259980	Fuel Hose (L110)		
	8372101020	Fuel Hose (L160)		
11	8002101040	Hose Clamp	4	4
	8401130200	Hose Clamp		
12	8002107010	Line Filter	1	1
13	8442104003	Fuel Tank Compl.	1	
	8392102003	Fuel Tank Compl.		1
14	8442106000	Fuel Filter	1	1
15	8401130502	Fuel Tank Cap Compl	1	1
16	8111130300	Fuel Strainer Assy	1	1
17	8442105000	Grommet	1	1
18	0401401601	O Ring, S16	1	1
19	0170208254	Bolt, M8 x 25	2	2
20	0933110201	Washer, t1.6 x 8.5 x 25	2	2
21	0251208001	Spring Washer, M8	2	2
22	0902010810	Nyloc Nut, M8	2	2
23	844210200	Centrifugal Clutch	1	1
24	8442102030	Side Plate (A)	1	1
25	8442102040	Side Plate (B)	1	1
26		Woodruf Key	1	1
	0312104133	Woodruf Key		
27	0181412370	Nut, M12 (Fine-Thread)	1	1
28	0251212001	Spring Washer, M12	1	1
29				
30	8442103000	Clutch Housing	1	1
31	0180208208	Bolt, M8 x 20, 8T	1	1
32	0251208001	Spring Washer, M12	1	1
33	0933110221	Washer, t3.2 x 8.5 x 25	1	1
34		Engine Guard	1	
	8372105000	Engine Stay		1
35	0180208308	Bolt, M8 x 30, 8T	4	
	0180208458	Bolt, M8 x 45, 8T		2
36	0251208001	Spring Washer, M8	4	2
37	0933110121	Washer, t4.5 x 8.5 x 25	4	
	0256308110	Washer, M8		2
38	0902010810	Nyloc Nut, M8		2
39	8122301000	Operation Handle	1	
	8302301000	Operation Handle		1
40	8442302000	Rubber Isolator for Handle	2	

	8601121000	Rubber Isolator for Handle		2
41	0180208208	Bolt, M8 x 20, 8T	4	4
42	0251208001	Spring Washer, M8	4	4
43	0180208204	Bolt, M8 x 20	6	6
44	0251208001	Spring Washer, M8	6	6
45	0256308110	Washer, M8	6	6
46	8531110000	Throttle Lever	1	1
	0910011020	Throttle Lever		
47	8002302000	Throttle Wire	1	1
	5401811000	Throttle Wire		
48	0921011030	Hose Band	2	2
49				
50	092114E64S	Wire Clamp	2	2
	092116EE4J	Wire Clamp		
51	8442501004	Crank Case	1	
	8392501002	Crank Case		1
52	8442502000	Crank Case Cover	1	
	8392502000	Crank Case Cover		1
53	8442503000	Packing	1	
	8392503000	Packing		1
54	0180206254	Bolt, M6 x 25, 4T	8	8
55	0251206001	Spring Washer, M6	8	8
56	0256906110	Washer, M6	8	8
57	8442504001	Shaft Cover	1	
	8392504001	Shaft Cover		1
58	0401103401	O Ring, P34	1	
	0401403901	O Ring, S39		1
59	0180106164	Bolt, M6 x 16	2	
60	0251206001	Spring Washer, M6	2	
61	8442505101	Crankshaft	1	
	8392505100	Crankshaft		1
62	0521163061	Bearing, 6306	1	
	05221162071	Bearing, 6207		1
63	0521562041	Bearing, 6204LLU	1	
	0521563051	Bearing, 6305LLU		1
64	0804204700	Snap Ring, R47	1	
	0804206200	Snap Ring, R62		1
65	0180208168	Bolt, M8 x 16, 8T	1	
66	0251208001	Spring Washer, M8	1	
67	0933110221	Washer t3.2 x 8.5 x 25	1	
68	0804102500	Snap Ring, S25		1
69	8442506100	Pinion Shaft	1	1
70	0521562041	Bearing, 6204LLU	1	1
71	0521569071	Bearing, 6907LLU	1	1
72	0402140581	Oil Seal, SC40588	1	1
73	0311205200	Key, 5 x 5 x 20	1	1
74	8601237000	Connecting Rod	1	1
75	0521162041	Bearing, 6204	1	1
76	0804204700	Snap Ring, R47	1	1
77	0804102000	Snap Ring, S20	1	1
78	8601214000	Piston Pin	1	1
79	0804101600	Snap Ring, S16	1	1
80	8442801000	Guiding Cylinder	1	
	8312801000	Guiding Cylinder		1
81	8562801000	Guiding Cylinder		
	0401209001	O Ring, G90	1	
	0401210501	O Ring, G105		1

82	0180210304	Bolt, M10 x 30, 4T	4	
83	0180210308	Bolt, M10 x 30,8T		4
	0251210001	Spring Washer, M10	4	4
84	8451320000	Bellows	1	1
	8601320000	Bellows		

Ref. No.	Part No.	Description	TV5DX	TV6DX
85	8451321000	Bellows Stop Band	2	2
	870142000	Bellows Stop Band		
86	8442802000	Spacer	2	2
87	8442803001	Protector	1	1
	8562802000	Protector		
88	8451312000	Oil Plug	1	1
89	8441313000	Packing	1	1
90	8443001002	Spring Cylinder	1	1
	8563001000	Spring Cylinder		
91	0401208001	O Ring, G80	2	2
	0401209500	O Ring, G95		
92	8443011013	Ram Rod	1	1
	8563002000	Ram Rod Compl		
93	8443002022	Piston Guide	1	1
94	0181818140	Nut, M18 x p1.6	1	1
95	8443003000	Guide Joint	1	1
	8563003000	Guide Joint		
96	0808116045	Spring Pin, 6 x 45	1	1
97	8113004000	Spring Compl, Upper	1	
	8313004010	Spring Compl, Upper		1
	8563004001	Spring Compl, Upper		
98	8113006000	Spring Compl, Lower	1	
	8313004021	Spring Compl, Lower		1
	8563005000	Spring Compl, Lower		
99	8113005110	Foot Stand	1	

